

REMARKS

Claims 12-18 and 23-24 are currently pending in this application. In this Reply, Applicant amends claims 12 and 17. In the Office Action dated August 8, 2005, the Examiner withdrew claims 19-22 from consideration.

In the Office Action, the Examiner rejected claims 12-14, 16-18, and 23-24 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,883,329 to O'Dwyer. The Examiner also objected to claim 15 as being dependent upon a rejected base claim. Applicant thanks the Examiner, however, for indicating that claim 15 would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims.

Applicant respectfully traverses the Examiner's rejection of claims 12-14, 16-18 and 23-24 under 35 U.S.C. § 102(b) as being anticipated by O'Dwyer. In order to properly anticipate Applicant's claimed invention under 35 U.S.C. § 102, each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the...claim." See M.P.E.P. §2131 (8th ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th ed., 2001), p. 2100-69. Applicant submits that the Examiner has failed to meet this burden.

Applicant respectfully submits, for example, that O'Dwyer does not teach each and every element of amended claim 12. The Examiner asserts that O'Dwyer discloses a "barrel assembly comprising: a) a barrel; b) a plurality of external chambers; c)

respective propellant charges; d) a plurality of stacked projectiles; e) a conveying port; f) a control system; g) a tail structure that defines the expansion space; and h) expansion spaces.” (Office Action at 2.) In support of this assertion, the Examiner lists reference numerals (which Applicant interprets as corresponding to figures in O'Dwyer) that allegedly correspond to elements of the claimed invention, however, the Examiner has incorrectly listed the correspondence between several elements and the O'Dwyer reference numerals. For example, “propellant charges” are denoted in O'Dwyer by reference numeral 16, not 18 as indicated by the Examiner. (Id.) Reference numeral 18, in O'Dwyer refers to “ignition means.” (Col. 5, line 59.) In addition, the Examiner asserts that “a conveying port,” as recited in amended claim 12, corresponds to reference numeral 46 in O'Dwyer, however, reference numeral 46 is directed to “ignition apertures.” (Col. 5, line 66.)

Moreover, O'Dwyer fails to disclose a barrel assembly having “a plurality of external chambers containing respective propellant charges” (emphasis added), as recited in amended claim 12. O'Dwyer does not disclose “a plurality of external chambers” (emphasis added), as recited in amended claim 12. Nor does O'Dwyer disclose “external chambers containing propellant charges” (emphasis added), as recited in claim 12. In fact, the Examiner incorrectly contends that O'Dwyer discloses a plurality of external chambers, which the Examiner contends “contain [reference numeral] 18.” Reference numeral 18 in O'Dwyer, however, refers to “ignition means” designed to detonate propellant charges contained within the barrel and between the projectiles. (Fig. 7.) The propellant charges disclosed in O'Dwyer are not contained within the external chambers, as recited in amended claim 12.

O'Dwyer also does not disclose external chambers having "a port that conveys propellant gas from the external chamber into the expansion space" (emphasis added), as recited in amended claim 12. The Examiner contends that O'Dwyer discloses a conveying port, defined by reference numeral 46. As discussed above, reference numeral 46, however, is directed to "ignition apertures," not "a port that conveys propellant gas," as recited in amended claim 12. The "ignition apertures" disclosed in O'Dwyer do not convey propellant gas "from an external chamber into an expansion space," as recited in amended claim 12. In fact, not only does O'Dwyer fail to disclose a port, but it fails to disclose an expansion space into which propellant gas is conveyed, as recited in amended claim 12. In O'Dwyer, the "discrete propellant charges 16 [are already] disposed between adjacent assemblies [in the barrel] 14 for propelling the respective assemblies" (col. 4, lines 12-14) and are not conveyed into an expansion space.

Accordingly, for at least the above reasons, Applicant submits that amended claim 12 is not anticipated by O'Dwyer and is allowable. Applicant further submits that claims 13-16 are allowable at least due to their dependence from amended claim 12.

Applicant also respectfully submits that amended claim 17 and claim 23 are not anticipated by O'Dwyer and are allowable, for at least the reasons listed above in reference to amended claim 12. Amended claim 17, for example, recites "a plurality of external propellant chambers," wherein "each external propellant chamber comprises propellant ignition means and a port into the barrel for exit of propellant gases." Claim 23 recites, for example, "propellant charges arranged externally of the barrel for propelling respective projectiles" and "expansion spaces between the projectiles to

receive products of the combustion of the propellant charges." These claim limitations are not disclosed in O'Dwyer. Accordingly, Applicant submits that claims 18 and 24 are allowable at least due to their dependence from allowed amended claim 17 and allowed claim 23, respectively.


In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of all pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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